

AMENDMENTS

In the claims:

1. – 135. (Cancelled)

136. (Currently Amended) A hybrid polymer comprising: (1) a macroporous polymer substrate ~~polymer~~ with a surface modified to facilitate co-continuity of functional groups to an external environment; and (2) one or a plurality of ~~grafted polymers grafted in pellicular formation to the surface of said substrate, said one or a plurality of polymers~~ having (a) a combined thickness of less than 50 microns ~~in pellicular formation;~~; and (b) functional groups which are co-continuous to an external environment; wherein at least one grafted polymer in the hybrid polymer maintains the said functional groups are capable of remaining ~~-co-continuous character of the functional groups to an~~ with the external environment.

137. (Previously Presented) The hybrid polymer of Claim 136 wherein at least one grafted polymer has a thickness of less than 10 microns.

138. (Previously Presented) The hybrid polymer of Claim 136 wherein at least one grafted polymer has a thickness of less than 5 microns.

139. (Previously Presented) The hybrid polymer of Claim 136 wherein at least one grafted polymer has a thickness of less than 2 microns.

140. (Cancelled)

141. (Currently Amended) The hybrid polymer of any one of Claims 137 to 139 wherein the at least one grafted polymer ~~contains~~ is the penultimate graft in the pellicular formation.

142. (Previously Presented) The hybrid polymer of any one of Claims 136 to 139, wherein the substrate polymer comprises a polyolefin, a fluoropolymer or a blend of polymers or co-polymers.

143. (Previously Presented) The hybrid polymer of Claim 142, wherein the substrate polymer comprises polypropylene or a polypropylene/EPR co-polymer.

144. (Previously Presented) The hybrid polymer of Claim 142, wherein the substrate polymer comprises a polypropylene/EPDM blend.
145. (Previously Presented) The hybrid polymer of any one of Claims 136-139, wherein the substrate polymer has the following characteristics:
a hardness value of from about Hardness Shore "A" 5 to about Hardness Shore "D" 100; and
a Flexural Modulus Value of from about 50 to about 2000 Mpa.
146. (Cancelled)
147. (Previously Presented) The hybrid polymer of any one of Claims 136-139, wherein the external environment is a liquid, solid or gaseous environment comprising reactive entities.
148. (Previously Presented) The hybrid polymer of any one of Claims 136-139, wherein the one or a plurality of grafted polymers is macroporous.
149. (Previously Presented) The hybrid polymer of any one of Claims 136-139, wherein the one or a plurality of grafted polymers comprise one or more olefinically-unsaturated monomers.
150. (Previously Presented) The hybrid polymer of Claim 149, wherein the one or more olefinically-unsaturated monomers are selected from the list comprising methyl methacrylate, ethyl methacrylate, propyl methacrylate including all isomers thereof, butyl methacrylate including all isomers thereof, other alkyl methacrylates, corresponding acrylates, functionalized methacrylates and acrylates fluoroalkyl (meth)acrylates, methacrylic acid, acrylic acid, fumaric acid and esters thereof, itaconic acid and esters thereof, maleic anhydride, styrene, α -methyl styrene, vinyl halides, acrylonitrile, methacrylonitrile, vinylidene halides of formula $\text{CH}_2=\text{C}(\text{Hal})_2$ wherein each halogen is independently Cl or F, optionally substituted butadiene of the formula $\text{CH}_2=\text{C}(\text{R}^1)\text{C}(\text{R}^1)=\text{CH}_2$ wherein R^1 is independently H, C_1 to C_{10} alkyl, Cl or F, sulphonic acids or derivatives thereof of formula $\text{CH}_2=\text{CHSO}_2\text{OM}$ wherein M is Na, K, Li, $\text{N}(\text{R}^2)_2$,

or $(\text{CH}_2)_2\text{D}$ wherein each R^2 is independently H or C_1 to C_{10} alkyl, D is CO_2Z , OH, $\text{N}(\text{R}^2)_2$ or SO_2OZ and Z is H, Li, Na, K or $\text{N}(\text{R}^2)_2$, acrylamide or derivatives thereof of formula $\text{CH}_2=\text{C}(\text{CH}_3)\text{CON}(\text{R}^2)_2$, and/or mixtures thereof.

151. (Previously Presented) The hybrid polymer of any one of Claims 136-139, wherein the one or a plurality of grafted polymers have a honeycomb-like structure and are derived from a star polymer, a block polymer or a graft polymer.
152. (Previously Presented) The hybrid polymer of any one of Claims 136-139, wherein the one or a plurality of grafted polymers comprises a polyHIPE-like polymer.
153. (Previously Presented) The hybrid polymer of any one of Claims 136-139, wherein the hybrid polymer is in the form of a cylinder, film, sheet, bead or disc.
154. (Previously Presented) A substrate for solid phase applications comprising the hybrid polymer of any one of claims 136-139.
155. – 167. (Cancelled)
168. (Previously Presented) The hybrid polymer of any one of Claims 136 to 139, wherein at least one grafted polymer has a degree of crosslinked character.